6. THE CLAIMS

1. A method, performed by a computer system that includes a host processor coupled to a first bus, a first switch coupled to the first bus and a second bus, a second switch coupled to the second bus and a third bus, and a device coupled to the third bus, of storing information in a configuration register in the device, the method comprising:

a) issuing a first configuration transaction onto the first bus;

b) forwarding the first configuration transaction to the second bus;

c) translating the first configuration transaction into a second configuration transaction;

d) forwarding the second configuration transaction to the third bus; and

e) storing information in the configuration register.

2. The method of claim 1, wherein the act of issuing the first configuration transaction includes a host processor issuing the first configuration transaction.

3. The method of claim 1, wherein the act of issuing the first configuration transaction includes issuing a HT configuration transaction.

4. The method of claim 1, wherein the act of issuing the first configuration transaction includes issuing a type1 configuration transaction.

5. The method of claim 1, wherein the act of issuing the first configuration transaction includes issuing the first configuration transaction onto a bus that is coupled to a third switch.

6. The method of claim 1, wherein the act of issuing the first configuration transaction includes issuing the first configuration transaction onto a bus that is coupled to an I/O device.

7. The method of claim 1, wherein the act of issuing the first configuration transaction includes issuing the first configuration to the first switch.

8. The method of claim 1, wherein the act of forwarding the first configuration transaction includes the first switch forwarding the first configuration transaction.

9. The method of claim 1, wherein the act of forwarding the first configuration transaction includes forwarding a type1 configuration transaction.

10. The method of claim 1, wherein the act of translating the first configuration transaction into a second configuration transaction includes translating a type1 configuration transaction into a type0 configuration transaction.

11. The method of claim 1, wherein the act of storing information includes storing a primary-segment number.

12. The method of claim 1, wherein the act of storing information includes storing a secondary-segment number.

13. The method of claim 1, wherein the act of storing information includes storing a Unit ID.

14. The method of claim 1, wherein the first configuration transaction contains a primary-segment field and a secondary-segment field.

15. The method of claim 1, wherein the act of translating the first configuration transaction includes translating the first configuration transaction into a second configuration transaction

16. A method, performed by a computer system that includes a host processor coupled to a first bus, a first switch coupled to the first bus and a second bus, a second switch coupled to the second bus and a third bus, and a device coupled to the third bus, of retrieving information from a configuration register in the device, the method comprising:

a) issuing a first configuration transaction onto the first bus;

b) forwarding the first configuration transaction to the second bus;

c) translating the first configuration transaction into a second configuration transaction;

d) forwarding the second configuration transaction to the third bus; and

e) retrieving information from the configuration register.

17. The method of claim 16, wherein the act of issuing the first configuration transaction includes a host processor issuing the first configuration transaction.

18. The method of claim 16, wherein the act of issuing the first configuration transaction includes issuing an HT configuration transaction.

19. The method of claim 16, wherein the act of issuing the first configuration transaction includes issuing a type1 configuration transaction.

20. The method of claim 16, wherein the act of issuing the first configuration transaction includes issuing the first configuration transaction onto a bus that is coupled to a third switch.

21. The method of claim 16, wherein the act of issuing the first configuration transaction includes issuing the first configuration transaction onto a bus that is coupled to an I/O device.

22. The method of claim 16, wherein the act of issuing the first configuration transaction includes issuing the first configuration to the first switch.

23. The method of claim 16, wherein the act of forwarding the first configuration transaction includes the first switch forwarding the first configuration transaction.

24. The method of claim 16, wherein the act of forwarding the first configuration transaction includes forwarding a type1 configuration transaction.

25. The method of claim 16, wherein the act of translating the first configuration transaction into a second configuration transaction includes translating a type1 configuration transaction into a type0 configuration transaction.

26. The method of claim 16, wherein the act of retrieving the information includes sending the information to the host processor.

27. The method of claim 16, wherein the act of retrieving the information includes sending the information to the second switch.

28. The method of claim 16, wherein the act of retrieving the information includes retrieving capabilities information.

29. A method, performed by a computer system that includes a host processor coupled to a bus, and a switch coupled to the bus, the method comprising:

a) issuing a configuration transaction that includes a primary-segment field and includes a secondary-segment field onto the bus; and

b) receiving the configuration transaction in the switch.

30. A method, performed by a computer system that includes a host processor coupled to a bus, and a switch coupled to the bus, of generating a configuration-forwarding table, the method comprising:

a) detecting the presence of the switch;

b) determining the number of primary ports present in the switch;

c) for each primary port present in the switch, determining if the primary port is enabled or disabled; and

d) for each enabled primary port in the switch, storing a value in the configuration-forwarding table that identifies the primary segment number of the bus that is coupled to the port.

31. The method of claim 30, further including:

e) for each disabled primary port in the switch, storing a value that indicates that no segments are coupled to the disabled port.

32. The method of claim 30, wherein the act of detecting the presence of the switch includes issuing a configuration transaction.

33. The method of claim 30, wherein the act of determining the number of primary ports present in the switch includes issuing a configuration transaction.

34. The method of claim 30, wherein the act of storing the value includes issuing a configuration transaction.

35. The method of claim 30 further comprising:

e) for each enabled primary port present in the switch, storing a value in the configuration-forwarding table that indicates the span of the highest numbered segment that is coupled to the port of the switch.

36. The method of claim 35, wherein the act of storing the value includes storing a value that indicates the span of the highest numbered primary segment that is coupled to the port of the switch

37. A method, performed by a computer system that includes a host processor coupled to a first bus, and a switch coupled to the first bus, of generating a configuration-forwarding table, the method comprising:

a) detecting the presence of the switch;

b) determining the number of secondary ports present in the switch;

c) for each secondary port present in the switch, determining if the secondary port is enabled or disabled; and

d) for each enabled secondary port in the switch, storing a value in the configuration-forwarding table that identifies the secondary segment number of the bus that is coupled to the port.

38. The method of claim 37, further including:

e) for each disabled secondary port in the switch, storing a value that indicates that no segments are coupled to the disabled port.

39. The method of claim 37, wherein the act of detecting the presence of the switch includes issuing a configuration transaction.

40. The method of claim 37, wherein the act of determining the number of secondary ports present in the switch includes issuing a configuration transaction.

41. The method of claim 37, wherein the act of storing the value includes issuing a configuration transaction.

42. The method of claim 37 further comprising:

f) for each enabled secondary port present in the switch, storing a value in the configuration-forwarding table that indicates the span of the highest numbered

segment that is coupled to the port of the switch.

43. The method of claim 42, wherein the act of storing the value includes storing a value that indicates the span of the highest numbered secondary segment that is coupled to the port of the switch.

44. A method, performed by a computer system that includes a host processor coupled to a first bus, a first switch coupled to the first bus and a second bus, and a second switch coupled to the second bus, of forwarding a configuration transaction comprising:

a) issuing a type1 configuration transaction on the first bus;

b) receiving the type1 configuration transaction in the first switch;

c) evaluating a logical equation; and

d) if the result of the evaluation of the logical equation is a first value, then forwarding the type1 configuration transaction to the second switch.

45. The method of claim 44, wherein the act of evaluating a logical equation includes evaluating a first value from a configuration-forwarding table.

46. The method of claim 44, wherein the act of receiving the type1 configuration transaction includes receiving the type1 configuration transaction in an HT switch.

47. A method, performed by a computer system that includes a host processor coupled to a first bus, a first switch coupled to the first bus and a second bus, and a second switch coupled to the second bus, of forwarding a configuration transaction comprising:

a) issuing a type1 configuration transaction on the first bus;

b) receiving the type1 configuration transaction in the first switch;

c) evaluating a logical equation; and

d) if the result of the evaluation of the logical equation is a first value, then forwarding the type1 configuration transaction to the second switch.

48. A method, performed by a computer system that includes a host processor that is coupled to a first bus, and a switch that is coupled to the first bus, of forwarding a packet comprising:

a) receiving a packet;

b) determining the Unit ID of the packet;

c) retrieving a primary-segment value from a first storage location within the switch;

d) retrieving a secondary-segment value from a second storage location within the switch; and

e) forwarding the packet through a port that is coupled to a bus that is identified by the primary-segment value and the secondary-segment value.

49. The method of claim 48, wherein the act of retrieving the primary-segment includes retrieving the primary-segment from a table based upon the value of the Unit ID.

50. The method of claim 48, wherein the act of retrieving the secondary-segment includes retrieving the secondary-segment from a table based upon the value of the Unit ID.

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